OIPE IAP66
JAN 26 2007
PATENT & TRADEMARK OFFICE

FIG. 1

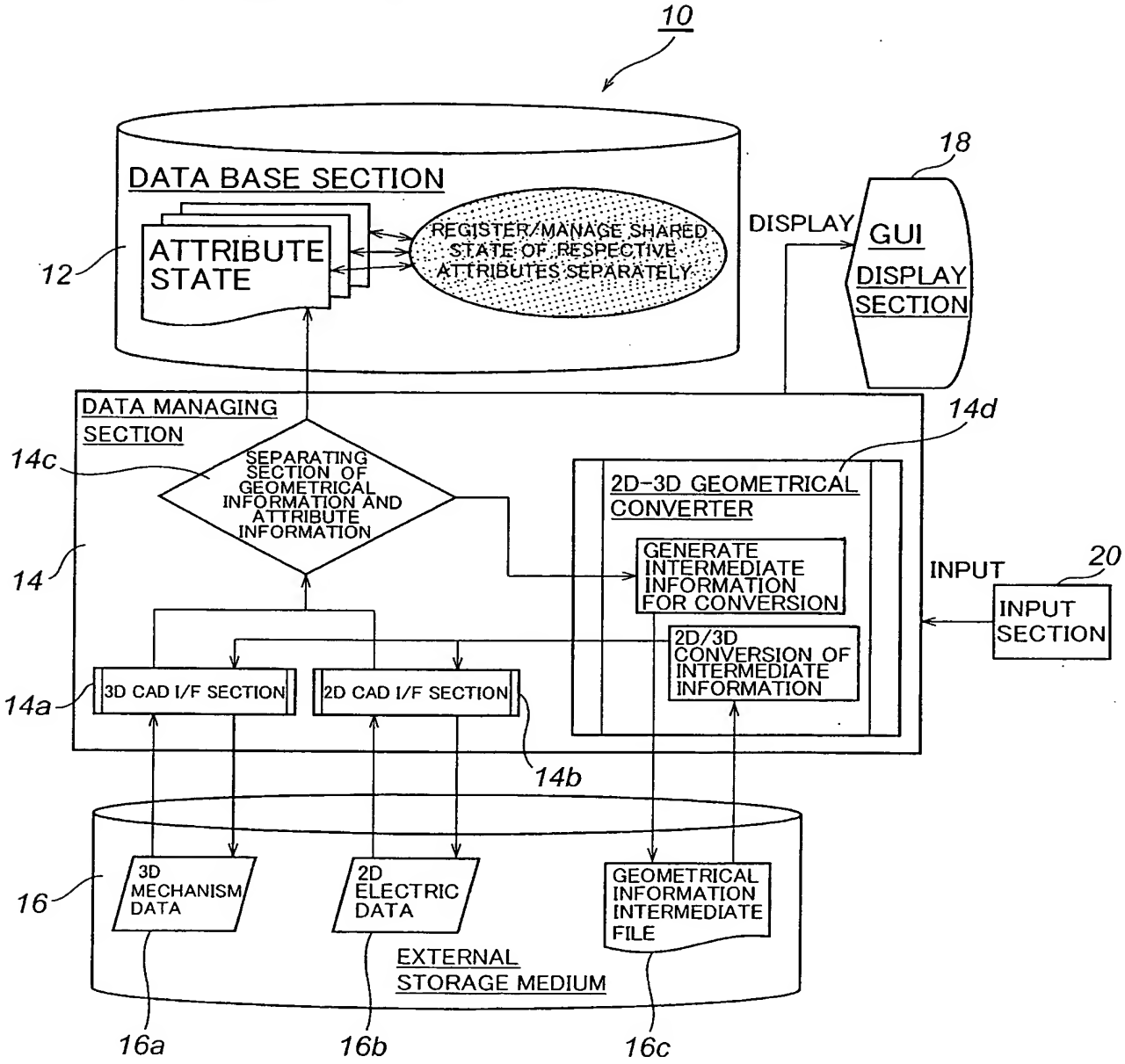


FIG. 2

SHARED PARAMETER NAME	MECHANISM CAD INSTANCE NAME	ELECTRIC CAD INSTANCE NAME
PARTS ORIGIN	Pars Origin	Macro Origin
PARTS NUMBER	Part Number	PN
BOARD OUTLINE	Board	Board Layer
CONSTRAINT AREA	Constraint	Constraint Layer
MATERIAL	Material	E-Mat

FIG. 3

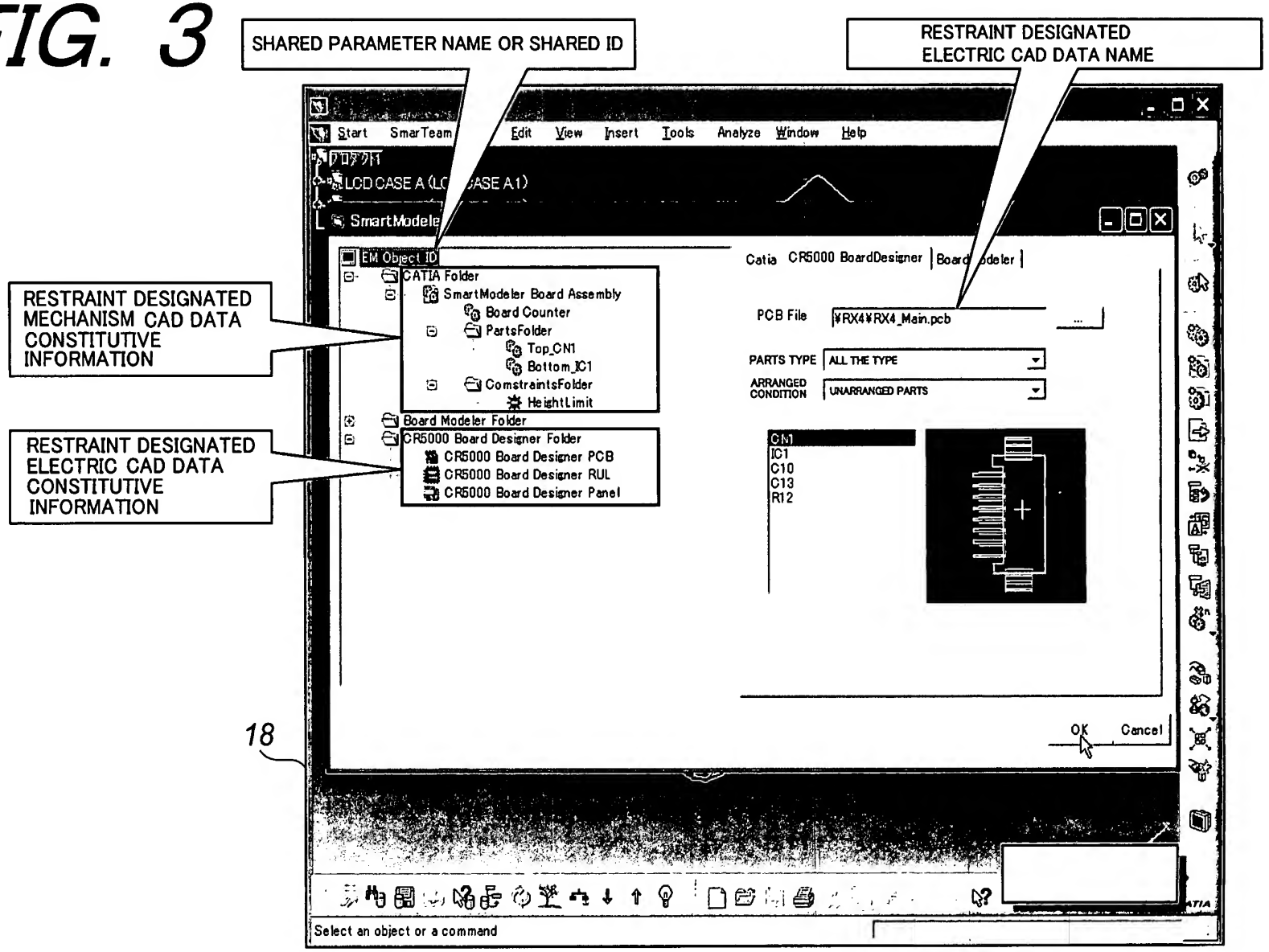

SHARED PARAMETER NAME OR SHARED ID
RESTRAINT DESIGNATED ELECTRIC CAD DATA NAME
RESTRAINT DESIGNATED MECHANISM CAD DATA CONSTITUTIVE INFORMATION
RESTRAINT DESIGNATED ELECTRIC CAD DATA CONSTITUTIVE INFORMATION
18
Start
SmarTeam
Edit
View
Insert
Tools
Analyze
Window
Help
EM Object ID
CATIA Folder
SmartModeler Board Assembly
Board Counter
PartsFolder
Top_CN1
Bottom_IC1
ComstraintsFolder
HeightLimit
Board Modeler Folder
CR5000 Board Designer Folder
CR5000 Board Designer PCB
CR5000 Board Designer RUL
CR5000 Board Designer Panel
Catia CR5000 BoardDesigner
PCB File
¥RX4¥RX4_Main.pcb
PARTS TYPE
ALL THE TYPE
ARRANGED CONDITION
UNARRANGED PARTS
CN1
IC1
C10
C13
R12
OK
Cancel
Select an object or a command

FIG. 4

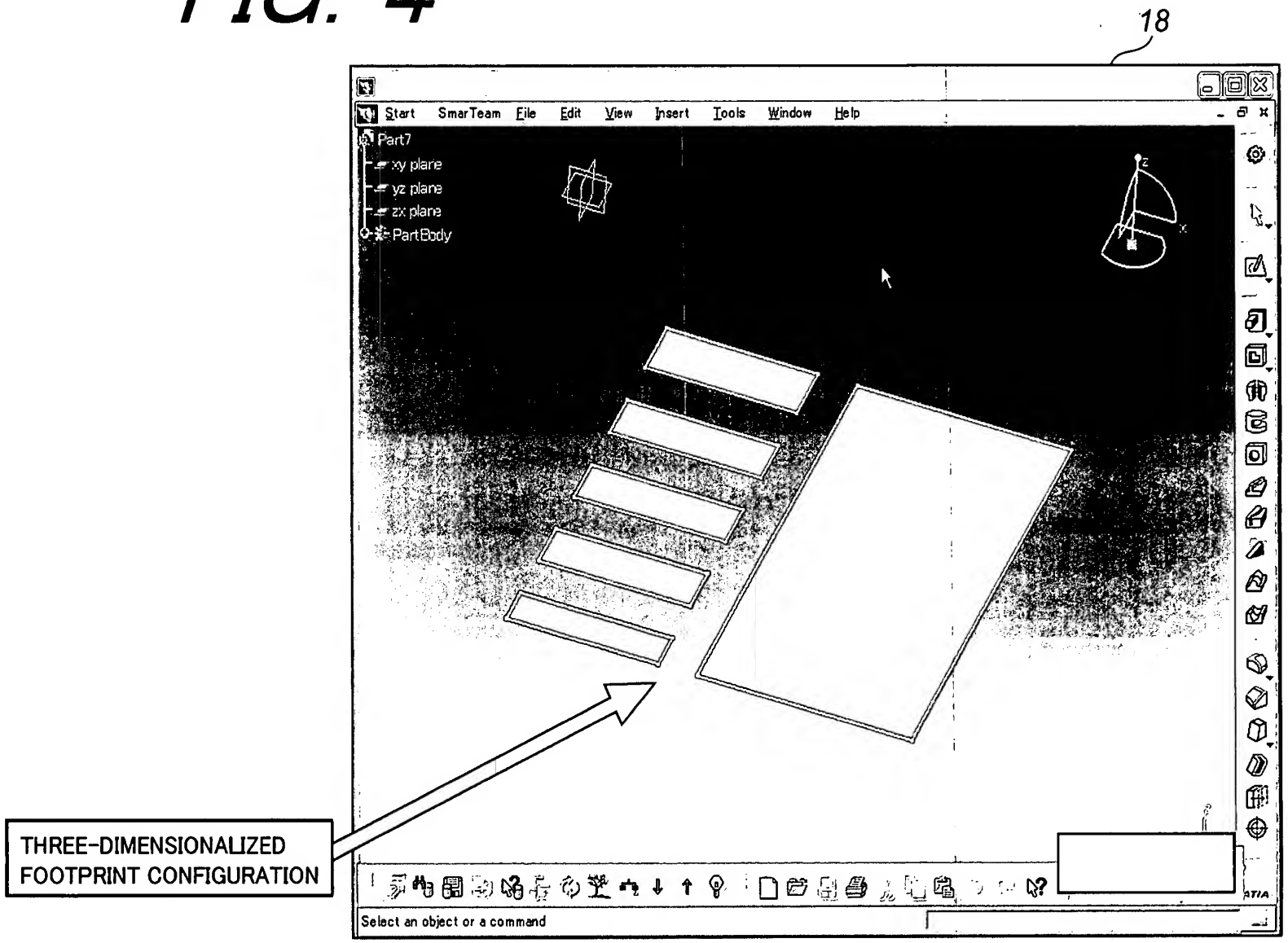

18
Start
SmarTeam
File
Edit
View
Insert
Tools
Window
Help
Part7
xy plane
yz plane
zx plane
PartBody
Select an object or a command
THREE-DIMENSIONALIZED FOOTPRINT CONFIGURATION

FIG. 5

GEOMETRICAL INFORMATION IS APPOINTED WITH SEARCH CONDITION OF ONLY AMONG CONDUCTIVE MATERIALS SUCH AS PATTERNS AND METAL SCREWS, THEN, THEIR PHYSICAL INTERFERENCE DISTANCES ARE MEASURED,WHEREBY DESIGN VERIFICATION OF ELECTRICAL NOISES TO BE CAME FLYING MAY BE MADE.

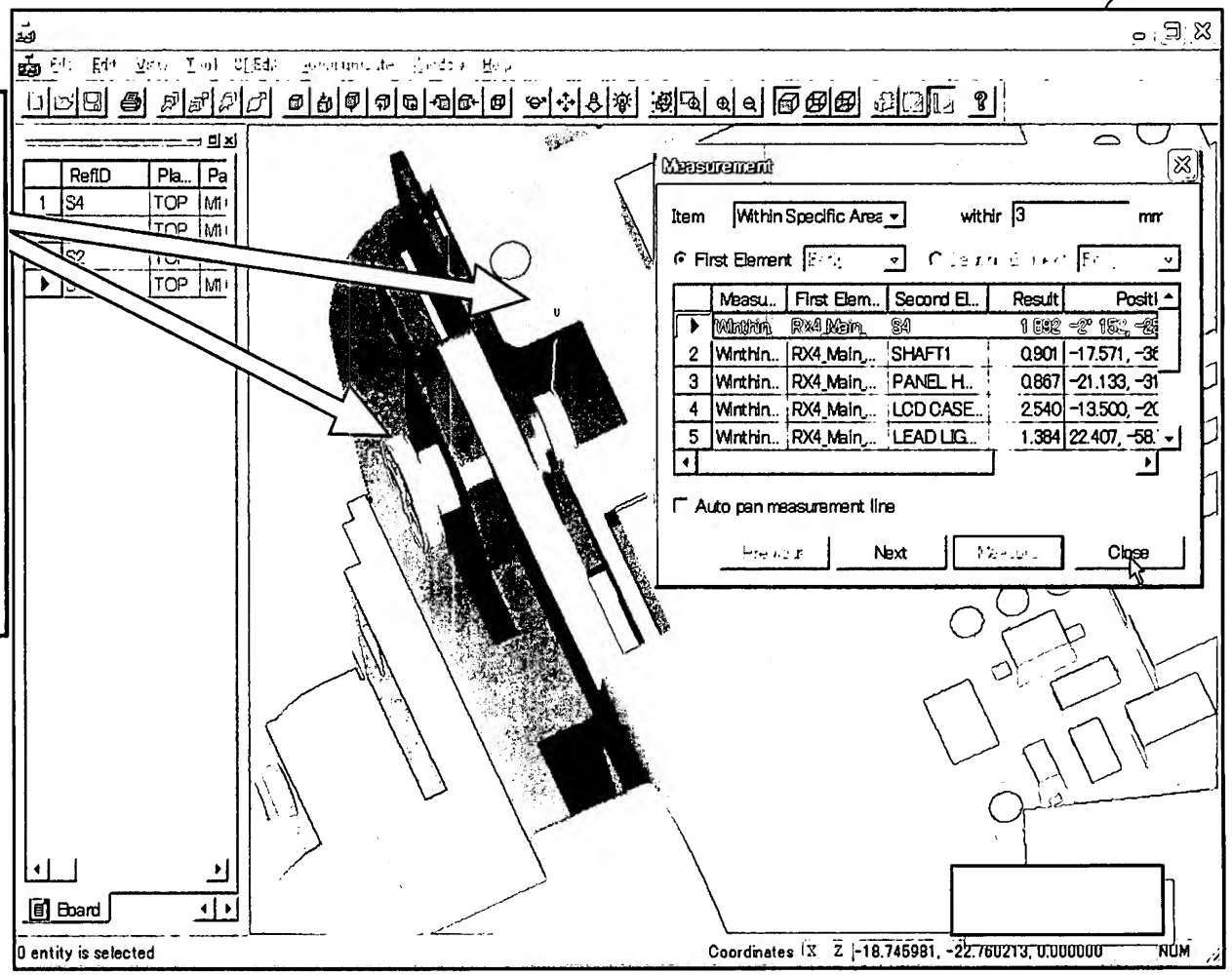
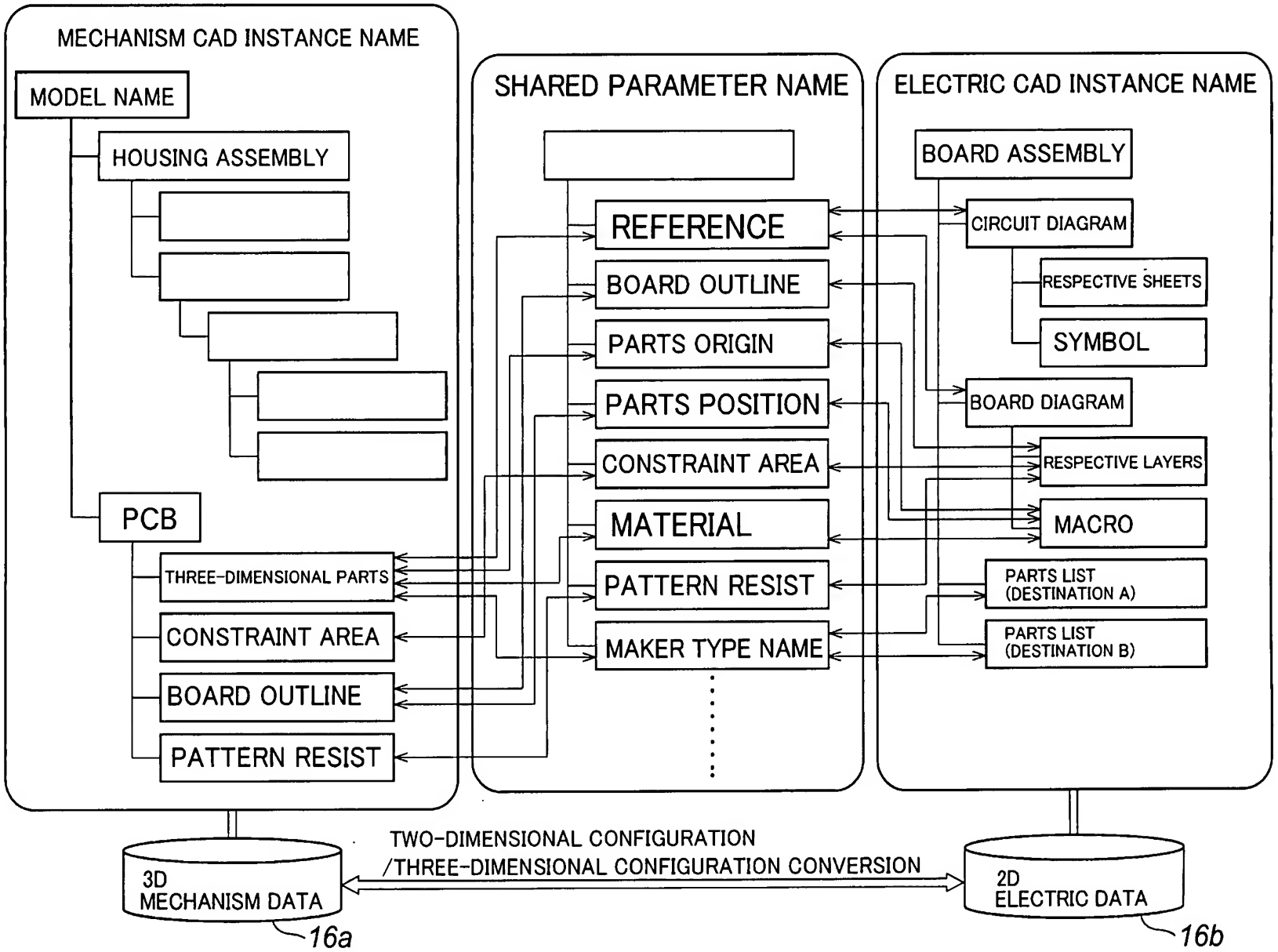


FIG. 6


MECHANISM CAD INSTANCE NAME
MODEL NAME
HOUSING ASSEMBLY
PCB
THREE-DIMENSIONAL PARTS
CONSTRAINT AREA
BOARD OUTLINE
PATTERN RESIST
SHARED PARAMETER NAME
REFERENCE
BOARD OUTLINE
PARTS ORIGIN
PARTS POSITION
CONSTRAINT AREA
MATERIAL
PATTERN RESIST
MAKER TYPE NAME
ELECTRIC CAD INSTANCE NAME
BOARD ASSEMBLY
CIRCUIT DIAGRAM
RESPECTIVE SHEETS
SYMBOL
BOARD DIAGRAM
RESPECTIVE LAYERS
MACRO
PARTS LIST (DESTINATION A)
PARTS LIST (DESTINATION B)
TWO-DIMENSIONAL CONFIGURATION /THREE-DIMENSIONAL CONFIGURATION CONVERSION
3D MECHANISM DATA
16a
2D ELECTRIC DATA
16b